OVTP Merit Review
EPAct State & Alternative Fuel Provider
Data Collection and Management

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This presentation does not include any proprietary or confidential information.
Outline

• Purpose of Work
• Approach
• Beyond AFVs to Alternative Compliance
• Accomplishments
• Relevance to DOE Goals & Objectives
• Future Activities
• Summary
Purpose of Work

• NREL directly supports DOE’s responsibility to implement the EPAct State & Fuel Provider regulations

• Objectives
  – Collect, store, and analyze data covered fleets submit to comply with EPAct state and fuel provider requirements
  – Encourage/empower fleets to go beyond standard compliance requirements to reduce petroleum use

• Goal: 100% reporting compliance
Approach – Overall

• Create and maintain a secure, accurate, and flexible data management system
• Provide easy-to-use data mining tools to help manage the program
• Provide flexible, easy-to-use fleet reporting mechanisms for covered fleets
• Provide analysis tools and data to help fleets go beyond just acquiring AFVs
Approach – Secure, Accurate System

- **Oracle database on UNIX server**

- **Access**
  - Online through high security login pages
  - Each fleet sees only its own data

- **Data entry done through online forms**
  - Drop lists, error checking

- **Data input triggers embedded calculations of compliance status, banked credits**
Approach – Flexible System

- Standard Compliance (SC)
  - AFV and biodiesel credits
  - Exemptions
  - Credit trades
  - Banked credit balance

- Alternative Compliance (AC)
  - AFV and biodiesel credits
  - Exemptions
  - Credit trades
  - Banked credit balance
Approach – Management Tools

- Online control room to access database
- Real-time data mining
  - View AFV profiles, biodiesel use, compliance rates
  - Spot potential delinquency trends
- Track exemption review process
- Track AC process
Approach – Management Tools

- Review individual fleet compliance history
  - SC banked credits, credit trades, compliance, annual reports
  - AC banked gasoline gallon equivalents, multi-step waiver submission process, compliance
- Execute credit trades
- Execute approved exemptions
Approach – SC Reporting Mechanisms

- Three mechanisms
  - Online form
  - Spreadsheet: Sent to database administrator (DBA) who uses auto-upload feature
  - Hard copy: Sent to DBA who uses online forms

- Report fully/partially any time of year
- Online and phone help
Approach – SC Reporting Mechanisms

• **Submitting exemption requests**
  – Written requests submitted to DOE
  – DOE reviews, makes decision
  – Data entry triggers recalculation of fleet status–compliance, banked credits
  – Review process managed with Exemption Tracker

• **Submitting trade request**
  – Process similar to exemptions
Beyond AFVs to Alternative Compliance

- **Mandating AFVs has limitations**
  - Availability of AFV and fuel
  - Use of alternative fuels in flex-fuel AFVs
- **Alternative Compliance**
  - Aimed more directly at goal of reducing use of conventional fuels
  - Wider array of technology options available to meet compliance requirements
Beyond AFVs to Alternative Compliance

• Fleets
  – Apply beforehand to participate in AC option
  – Maintain Alternative Compliance vehicle (ACV) inventory online
  – Submit written annual report after year is over

• NREL enters data into database and assists DOE to determine if compliance is achieved
Beyond AFVs to Alternative Compliance

• AC planning tool available online for covered fleets electing AC option

• Fleets can use tool to:
  – Calculate AC fuel reduction requirement
  – Maintain ACV inventory
Beyond AFVs to Alternative Compliance

- Fleets use tool to create fuel use reduction plan
- Fuel use reduction tabs for:
  - Alternative fuels
  - Hybrid electric vehicles
  - Biodiesel blends
  - Fuel economy
  - Vehicle miles travelled Reduction
  - Truck stop electrification
  - Idling time reduction
  - Onboard idle reduction
Accomplishments – 100% Compliance Goal

- 99% compliance rate since 1997
- More than 4,000 SC annual reports
  - Generally, 75% online reporting, 20% spreadsheets, 5% hard copy submission
- 306 exemptions
- 238 trade transactions – 8,975 credits traded
- 25 AC waiver intents for MY2008
- 9 AC waiver requests for MY2008
Relevance to DOE Goals & Objectives

• NREL directly supports DOE’s responsibility to implement the EPAct State & Fuel Provider regulations
  – Creates and maintains the tools/analysis to manage the EPAct S&FP program
  – Provides communication link with covered fleets
  – Creates and maintains reporting tools, planning tools, and help desk for fleets
Relevance to DOE Goals & Objectives

• **Successful implementation of standard compliance regulations supports**
  - Demand for alternative fuel infrastructure (AFVs, refueling stations)
  - Near-term petroleum reduction, to the extent the alternative fuels are used

• **Successful implementation of alternative compliance regulations helps**
  - Create demand for advanced vehicles and fuels and energy efficient technologies (hybrid electric vehicles, fuel cell vehicles, non-petroleum based fuels, idle reduction, etc.)
  - Directly and immediately reduce petroleum use
Future Activities

- **Complete implementation of AC option**
  - Intents to Apply, Waiver Request - working
  - Integration of AC Reports:
    - *database redesign done and procedures established*
    - *database modifications underway; to be completed August 2008*

- **Energy Independence and Security Act of 2007 (EISA)**
  - Amends EPAct 2005
  - Support DOE’s upcoming rulemaking process to establish EISA credits
  - Create procedures and modify database, fleet reporting mechanisms, and management tools
  - Implement in FY2009
Summary

- Continue support of DOE responsibility to implement EPAct legislation
- Continue to provide secure, accurate, flexible approach for fleets and real-time data mining to support management
- Maintain 99% compliance rate
- Complete AC implementation August 2008
- Incorporate changes for EISA 2007 in FY09
- Provide tools and resources to help fleets go beyond requirements to increase petroleum reductions